

1 Independent Claim 12

2 Independent Claim 12 is directed to a device having a flexible shaft and at least two
3 pulling and/or pushing elements extending within the flexible shaft, and a fixing device that
4 either fixes the pulling and/or pushing elements in place or allows them to move freely. The
5 importance of this fixing device is that it allows the pulling and/or pushing elements to be
6 released so that a user can manually bend the shaft to the desired form. Once the shaft is
7 manually bent to the desired form, the fixing device may be placed in the locked position to fix
8 the pulling and/or pushing elements in place, thereby fixing the shaft in the particular form.

9 Claim 12 requires at element (c):

10 a fixing device located in a fixed position with respect to the shaft adjacent to the
11 proximal end of the shaft, **the fixing device having each of the at least two**
12 **pulling and/or pushing elements extending there through**, and being adapted
13 to reside alternatively in a releasing position in which the pulling and/or
14 **pushing elements are unsecured to the fixing device and are substantially**
15 **free to move axially there through**, or a locking position in which each pulling
16 and/or pushing element is fixed in place with respect to the fixing device.

17 This structure is described in the specification at page 8 in the paragraph beginning at line 5 to
18 line 28.

19 In contrast to this structure the Sato patent is directed to an endoscope having a specific
20 control arrangement for retracting or extending the control wires 13, 13', 15, and 15' to
21 manipulate the shape of the endoscope shaft. The control wires in Sato are connected to and
22 wrap around the control drums 16 and 17 so that the extension or retraction of the control wires
23 is accomplished by rotating the drums (Sato, Col. 3, lines 43-57). Being clearly connected to the
24 control drums to allow the manipulation sought in Sato, the control wires in Sato are not
25 unsecured to the control arrangement when the brake drum 30 is released. Rather, the Sato
26 control wires are continuously connected to the control arrangement regardless of whether the

1 brake is engaged or not, and are not at any time free to move axially through the control
2 arrangement. Furthermore, regardless of what is taken as the "fixing device" in the Sato patent,
3 it is apparent that the Sato control wires do not extend through any fixing device as required in
4 claim 12.

5 Because the Sato patent does not teach or suggest all of the features required in
6 independent claim 12, the Applicant submits that claim 12 is not anticipated by or rendered
7 obvious by the Sato patent, and is entitled to allowance together with its respective dependent
8 claims, claims 13 through 22.

9 Independent Claim 23

10 Claim 23 is amended above to require limitations similar to the limitations set out in
11 claim 12 as to the fixing device. Specifically, element (c) of claim 23 requires:

12 a fixing device located at or adjacent to the proximal end of the shaft, the fixing
13 device in a releasing position leaving the pulling and/or pushing elements
14 unsecured to the fixing device so that the pulling and/or pushing elements are
15 substantially free to move axially through the fixing device to enable the shaft
16 to be bent to a desired shape, and the fixing device in a locking position locking
17 the pulling and/or pushing elements in place with respect to the fixing device to
18 retain the shaft in the desired shape.

19 As described above with reference to claim 12, the Sato patent simply does not disclose
20 any control arrangement in which the control wires 13, 13', 15, and 15' are unsecured so that they
21 are substantially free to move axially through the control arrangement. In contrast, the Sato
22 control wires are connected to, and their movement is restricted by, the control drums 16 and 17,
23 regardless of whether the brake drum 30 is or is not engaged. The Sato control wires are never
24 free to move axially through any fixing device.

25 For these reasons, claim 23 is also not anticipated or rendered obvious by the Sato patent
26 and is in condition for allowance along with its dependent claims, claims 24 through 27.

1 Independent Claim 28

2 Claim 28 is directed to a method for operating an endoscope-type device having a
3 flexible, elongated shaft and at least two longitudinally bendable pulling and/or pushing elements
4 extending to the proximal end of the shaft and being connected to a point at a location spaced
5 apart from the proximal end. At element (a), claim 28 requires:

6 placing the at least two pulling and/or pushing elements in a condition in which
7 they are freely movable axially at the proximal end of the shaft and bending
8 the shaft to a desired longitudinally bent shape.

9 Element (d) requires:

10 with the shaft in the inserted position, placing the at least two pulling and/or
11 pushing elements in the condition in which they are freely movable axially at
12 the proximal end of the shaft

13 It is noted that dependent claim 29 also includes a similar limitation regarding placing the pulling
14 and/or pushing elements in the freely moveable condition.

15 As discussed above with reference to claims 12 and 23, the Sato patent simply does not
16 teach or suggest placing the control wires 13, 13', 15, or 15' in a condition in which they are
17 freely moveable axially at the proximal end of the endoscope shaft. Because the Sato patent does
18 not teach or even suggest the step required at element (a) or the step required in element (d) of
19 claim 28, the Sato patent cannot anticipate claim 28 nor render the claim obvious.

20 For all of these reasons the Applicant submits that claim 28 is in condition for allowance
21 together with its dependent claim, claim 29.
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23

1 THE CLAIMS ARE NOT OBVIOUS IN VIEW OF THE CITED ART

2 The Examiner rejected claims 13 and 24 under 35 U.S.C. §103(a), as being obvious over
3 the Sato patent in view of U.S. Patent No. 5,549,542 to Kovalcheck. (the "Kovalcheck patent" or
4 "Kovalcheck").

5 In forming the rejections as to claims 13 and 24, the Examiner relied primarily on the
6 Sato patent and cited the Kovalcheck patent only for the coil spring design for an endoscope
7 shaft. Kovalcheck, like the Sato patent, discloses an endoscope that is manipulated to a desired
8 shape from a control head at one end of the device. The control wires 110 used to manipulate the
9 flexible portion of the endoscope are connected to differential pulling plates 112 in the control
10 head. Like the Sato patent, the Kovalcheck patent does not teach or suggest the fixing device set
11 out in Applicant's independent apparatus claims, claims 12 and 23, nor does Kovalcheck teach or
12 suggest the freely moveable condition for the endoscope control wires required in independent
13 method claim 28. Thus, the Kovalcheck patent does not in any way make up for the deficiencies
14 of the Sato patent described above with reference to claims 12, 23, and 28.

15 Because the proposed combination of the Sato patent and the Kovalcheck patent does not
16 teach or suggest all of the elements set out in the Applicant's independent claims, claims 12, 23,
17 and 28, the Applicant respectfully submits that these claims are not rendered obvious by the
18 Examiner's proposed combination and are in condition for allowance together with their
19 respective dependent claims, including claims 13 and 24.

20
21 CONCLUSION

22 For all of the above reasons, the Applicant respectfully requests reconsideration and
23 allowance of claims 12 through 29.

1 If the Examiner should feel that any issue remains as to the allowability of these claims,
2 or that a conference might expedite allowance of the claims, he is asked to telephone the
3 undersigned attorney.

4 Respectfully submitted,

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18 CERTIFICATE OF FACSIMILE

19 I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, (Fax No.
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